

CLAIMS

WHAT IS CLAIMED IS:

1 1. In an electronic conferencing system wherein data is shared between a plurality
2 of participants during an electronic conference, a method of preventing domination of a
3 CPU by background transfers of teleconference object data among the plurality of
4 participants, the method comprising the steps of:

5 a) monitoring an external time spent by the CPU executing outside a background
6 transfer manager; and

7 b) transferring a data packet of teleconference object data to one or more of the
8 plurality of participants of the electronic conference if the external time is larger than a
9 minimum threshold and smaller than a maximum threshold.

1 2. The method of claim 1 further comprising the step of

2 c) monitoring an internal time spent by the CPU executing inside the background
3 transfer manager;

4 and wherein the minimum threshold is the internal time plus a variable offset.

1 3. The method of claim 2 further comprising the step of:

2 d) increasing the variable offset if the external time is less than the internal time.

1 4. The method of claim 3 wherein the maximum threshold is a predetermined delay
2 plus the variable offset.

1 5. The method of claim 4 wherein the predetermined delay is related to an average
2 frequency of servicing of the background transfer manager.

1 6. The method of claim 5 further comprising the step of:
2 e) increasing the variable offset if the external time is greater than the
3 predetermined delay plus the variable offset.

1 7. The method of claim 6 wherein increasing the variable offset in the steps d) and
2 e) is performed by raising the offset by a first amount for a first number of times that the
3 variable offset is raised and raising the variable offset by a second amount for a second
4 number of times that the variable offset is raised, wherein the first amount is different
5 from the second amount.

1 8. The method of claim 7 wherein increasing the variable offset in the steps d) and
2 e) is performed by clamping the variable offset at a predetermined maximum.

1 9 The method of claim 6 further comprising the step of:
2 f) reducing the variable offset after each step of transferring the data packet of the
3 teleconference object data to the one or more of the plurality of participants.

1 10. The method of claim 1 wherein the teleconference object data is a binary large
2 object (BLOB).

1 11. In an electronic conferencing system wherein data is shared between a plurality
2 of participants during an electronic conference, an apparatus for preventing domination of
3 a CPU by background transfers of teleconference object data among the plurality of
4 participants, the apparatus comprising:

5 a) means for monitoring an external time spent by the CPU executing outside a
6 background transfer manager; and

7 b) means for transferring a data packet of teleconference object data to one or more
8 of the plurality of participants of the electronic conference if the external time is larger
9 than a minimum threshold and smaller than a maximum threshold.

1 12. The apparatus of claim 11 further comprising:

2 c) means for monitoring an internal time spent by the CPU executing inside the
3 background transfer manager;

4 and wherein the minimum threshold is the internal time plus a variable offset.

1 13. The apparatus of claim 12 wherein the maximum threshold is a predetermined
2 delay plus the variable offset.

1 14. The apparatus of claim 13 wherein the predetermined delay is related to an
2 average frequency of servicing of the background transfer manager.

1 15. The apparatus of claim 14 further comprising:

2 e) means for increasing the variable offset if the external time is greater than the
3 predetermined delay plus the variable offset.

1 16 The apparatus of claim 15 further comprising:
2 f) means for reducing the variable offset after each step of transferring the data
3 packet of the teleconference object data to the one or more of the plurality of participants.

1 17. The apparatus of claim 11 wherein the teleconference object data is a binary
2 large object (BLOB).

1 18. In an electronic conferencing system wherein data is shared between a plurality
2 of participants during an electronic conference, an apparatus for preventing domination of
3 a CPU by background transfers of teleconference object data among the plurality of
4 participants, the apparatus comprising:

5 a) a first timer for monitoring an external time spent by the CPU executing outside a
6 background transfer manager; and

7 b) a transmission circuit for transferring a data packet of teleconference object data
8 to one or more of the plurality of participants of the electronic conference if the external
9 time is larger than a minimum threshold and smaller than a maximum threshold.

1 19. The apparatus of claim 18 further comprising:

2 c) a second timer for monitoring an internal time spent by the CPU executing inside
3 the background transfer manager;

4 and wherein the minimum threshold is the internal time plus a variable offset.

1 20. The apparatus of claim 19 wherein the maximum threshold is a predetermined
2 delay plus the variable offset.

1 21. The apparatus of claim 20 wherein the predetermined delay is related to an
2 average frequency of servicing of the background transfer manager.

1 22. The apparatus of claim 21 further comprising:

2 e) a delay circuit for increasing the variable offset if the external time is greater than
3 the predetermined delay plus the variable offset.

1 23. The apparatus of claim 18 wherein the teleconference object data is a binary
2 large object (BLOB).

1 24. An electronic conferencing system comprising:

2 two or more computer systems networked together via a communication medium,
3 each of the computer systems including a communications manager for communicating
4 via the communication medium, each of the computer systems running an application
5 which shares object data among the two or more computer systems, each of the
6 applications having a background transfer manager which prevents domination by
7 background activities of a CPU of each of the computer systems.

1 25. An system comprising:
2 a processor capable of running foreground activities and background activities;
3 a commiunications manager for communicating to one or more other systems via a
4 communication medim; and
5 a background transfer manager for transferring as one of the background activities
6 data to the one of more other systems via the communications manager, the background
7 transfer manager preventing domination of the processor by the background activities.

*add
a*

00508372-052800